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Economic Intelligence Report

MILITARY ASSISTANCE
BY THE SINO-SOVIET BLOC
1955-61



CIA/RR ER 62-18

June 1962

CENTRAL INTELLIGENCE AGENCY

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FOREWORD

This report reviews the amount of military assistance engaged in by the Sino-Soviet Bloc during 1955-61, discusses the philosophy underlying the decision of the Bloc to engage in this type of assistance, and surveys the prospects for possible future programs.

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MILITARY ASSISTANCE BY THE SINO-SOVIET BLOC*
1955-61

Summary

From its inception in 1955 through 1961, military assistance by the Sino-Soviet Bloc to non-Bloc countries has amounted to about \$2.3 billion** at Soviet list prices. About a dozen countries so far have received assistance, but the largest part of this assistance has been committed to Indonesia, Egypt, and Iraq.

The USSR, primarily motivated by political considerations, has supplied most of the military equipment provided under this program, although in 1955-56 Czechoslovakia and Poland, operating under Soviet direction, were charged with its administration. Communist China, apparently operating independently, also has provided military assistance, but it has been very small in comparison.

From the outset the sending of Bloc technicians to recipient countries and the establishing of training programs in the Bloc for personnel from recipient countries have been significant features of military assistance by the Bloc. The number of military technicians present in recipient countries has increased from a total of 250 in 1956 to more than 1,800 in the last half of 1961. Increasing stress also is being placed on training at installations in the Bloc, with courses for staff officers attaining greater prominence.

Although the time needed to realize substantial gains from its military assistance program may have proved greater than originally anticipated, the Bloc presumably views its progress to date as decidedly encouraging. Military assistance programs by the Bloc may be found in more than a dozen underdeveloped countries, and no country that has received major amounts of arms from the Bloc has cut off such aid.

* The estimates and conclusions in this report represent the best judgment of this Office as of 1 April 1962.

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The most significant development since the inception of military assistance by the Bloc to non-Bloc countries has been the decision to sell advanced conventional weapons systems, including a variety of missiles, although for the most part this advanced equipment is tactical or defensive in nature. At least Indonesia, Egypt, Iraq, and Finland are slated to receive advanced weapons not yet fully deployed in the military establishments of the Bloc.

Prospects for increasing military assistance by the Bloc are shown by the determination of the Bloc to accelerate existing programs and start new ones if recipients can be persuaded to accept such assistance. In view of international tensions in various parts of the world and the emergence of new countries without military establishments, the prevailing atmosphere favors the Bloc in attaining its objectives. As further incentive for acceptance of these offers, the Bloc probably will continue to supply arms quickly from large inventories at considerable discounts. Moreover, the trend toward providing more advanced weapons may well continue.

Beginning about 1949-50, Soviet military assistance to other countries of the Bloc became substantial. Through 1961 these countries (excluding Communist China) have received assistance that, when valued in terms of US costs of production, is on the order of \$7 billion.

Assistance to countries of the Bloc has consisted largely of equipment that has been superseded by newer models in the USSR. Increasingly, however, the USSR has shown a disposition to provide advanced types of equipment. Military assistance within the Bloc in the future is expected to follow the pattern of the recent past -- that is, the provision of advanced equipment but of the kind providing only defensive and local offensive capabilities.

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I. Introduction

This report presents a preliminary treatment of two aspects of military assistance by the Sino-Soviet Bloc: (1) assistance by the Bloc to non-Bloc countries and (2) Soviet assistance to other countries of the Bloc excluding Communist China.* The report attempts to answer the following questions:

1. What have been the past volume and the past pattern of shipments of military goods, and what training and other technical support have been provided?

2. What is to be expected over the next few years?

For purposes of this report, the term military assistance covers agreements to provide military arms, military-related equipment, and military training and technical services valued at Soviet list prices.

II. Assistance by the Sino-Soviet Bloc to Non-Bloc Countries

A. Over-All Program

The first military assistance agreement of the Sino-Soviet Bloc with a non-Bloc country occurred in 1955, when a contract was concluded between Czechoslovakia and Egypt providing for the sale to Egypt of fighter and bomber aircraft, armor, guns, and other materiel. Agreements by the Bloc with Afghanistan, Syria, and Yemen followed in 1956. The sale of military vehicles to Indonesia in 1956-57 preceded contracts for a wide range of armaments concluded with Indonesia and Iraq in 1958. More recently, Cuba and a number of African countries also have signed military assistance agreements with the Bloc. The agreements concluded during 1955-61 are estimated to have had a value at list prices of \$2.3 billion,** distributed as shown in Table 1.***

* To the extent that it has been necessary to base estimates of assistance on production and orders of battle -- primarily for Bloc recipients -- estimates of production and orders of battle published by the US military services have been used.

** For the derivation of this value and an evaluation of the significance of the list prices, see Appendix A.

*** Table 1 follows on p. 4.

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Table 1

Estimated Value of Military Assistance Agreements
Made by the Sino-Soviet Bloc
1955-61

<u>Area and Country</u>	<u>Estimated Value a/ (Million Current US \$)</u>	<u>Percent of Total</u>
Middle East		
Afghanistan	120	
Egypt	550	
Iraq	360	
Syria	250	
Yemen	30	
Area total	<u>1,310</u>	<u>55</u>
Asia		
India	20	
Indonesia	840	
Area total	<u>860</u>	<u>40</u>
Western Hemisphere and Africa		
Algeria	10	
Cuba	100	
Ghana	Negl.	
Guinea	3	
Mali	2	
Morocco	4	
Area total	<u>120</u>	<u>5</u>
Total	<u>2,300</u> c/	<u>100</u>

a. Values are based on available list prices (before discounts). For new and for more advanced equipment the quoted list prices are roughly equivalent to what the cost to provide the item would be in the US; for obsolescent equipment the quoted list prices are from one-half to two-thirds of what it would cost to produce the item in the US. For a discussion of prices, terms, and conversion rates, see Appendix A.

c. Data for individual countries have been rounded to two significant digits or less. Totals are derived from unrounded data and have been rounded to two significant digits or less.

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1. Equipment

Until 1961 the materiel released by the Bloc was at least obsolescent by the standards of the major powers and was provided in quantities that were comparatively insignificant in terms of the total inventory of the Bloc. As can be seen in Table 2,* a comparison of the quantities of selected equipment covered by these agreements with the estimated cumulative production of these items by the USSR demonstrates that the quantity of arms and equipment included in the military assistance program of the Bloc is a very small proportion of the total quantity available. The estimated shipments to non-Bloc countries represent only about 1 percent of the cumulative Soviet production of selected modern small arms, about 5 percent of the cumulative production of obsolescent artillery, and about 2 to 3 percent of the cumulative production of selected armored fighting vehicles and relevant models of ships and aircraft (see Table 5**). Thus it seems clear that, in comparison with the quantitative military requirements of the Bloc, the amount of materiel shipped to non-Bloc countries is of no great consequence, but in the context of the recipient's situation this materiel undoubtedly is of considerable significance.

The recent release of advanced equipment to recipient countries has introduced a new consideration for the Bloc. Some of this equipment is to come from current production and still is being distributed to military establishments in the Bloc. The quantities agreed to so far, however, are not large.

2. Specialists

The number of military specialists from the Bloc in non-Bloc countries is estimated to have risen from 250*** in 1956 to more than 1,800 during the last half of 1961. The increase in the number of these specialists has resulted from the sale of more sophisticated equipment, increasing staff and operational problems, and an absolute increase in the number of countries receiving assistance from the Bloc.

For the most part, efforts by the Bloc have been devoted to the training of non-Bloc personnel in the operation and maintenance of the arms and equipment. Egypt, however, has had a number of staff officers of field grade training in the USSR as well as a military mission from the Bloc advising the Egyptian command in organizational

* Table 2 follows on p. 7.

** Appendix B, p. 27, below.

*** These figures represent the estimated numbers present in under-developed countries for 1 month or more during the stated years.

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Table 2

Commitment of Major Military Equipment by the Sino-Soviet Bloc to Non-Bloc Countries a/
1955-61

	Units												
	Near East					Far East		Western Hemisphere and Africa					
	Afghanistan	Egypt	Iraq	Syria	Yemen	India	Indonesia	Algerian Rebels	Cuba	Ghana	Guinea	Mali	Morocco
Aircraft													
Tu-16 jet medium bombers		16 b/	10 b/				20 b/						46
Il-28 jet light bombers	40	50	16				20 to 25 b/						130
MIG-21 jet fighters		20 b/	16 b/				20 b/						56
MIG-19 jet fighters		40	16				10 b/	12					78
MIG-15/17 jet fighters	69	130	56	50		8	70	35				12	420
An-12 heavy transports			3										11
Other: nonjet combat, trainers, trans- ports, helicopters	70	140	18	12	37	24	160 b/	20					480
Land armaments													
JS-2/3 heavy tanks		60						30					90
T-34/54 medium tanks	200	280	260	280 c/	30			120					1,200
PT-76 amphibious light tanks		Some					80						80+
SU-76/100 self-propelled assault guns	12	100	120	75	60			50					420
BTR-40/152 armored personnel carrier	50	350	290	300	75		130				25	30	1,200
Artillery: field, antitank, antiaircraft, truck-mounted recoilless	350	700	620	600	300		260	48	700		36 to 48	47	3,700
Infantry weapons: rifles, machineguns	Many	25,000+	Many	100,000+	Many		Many	Many	Many	Some	Some	Some	130,000+
Infantry support: antitank recoilless, antiaircraft machineguns	Many	2,500+	Many	700+	Many		Many	Many	Many	Some	Some	Some	3,200+
Trucks and other vehicles	Many	6,000	5,000	3,000	220		Many	Many	Many		Some	Some	14,000+
Naval equipment													
Sverdlov-class light cruiser							1 b/						1
Skoryy-class destroyers		4					8 b/						12
Riga-class escort							8 b/						8
W-class medium submarines		9					6 b/						15
T-43 minesweepers		4		2			6 b/						12
Submarine chasers							16 b/		2				18
P-4/6 motor torpedo boats		18	12	15			10		4				59
Other: auxiliary vessels and landing craft		1	4				100 b/						100+
Guided Missiles													
Air-to-surface		Some					6 b/d/						6+ d/
Surface-to-air battalions			Some				11 to 14 b/						11 to 14+
Surface-to-surface (ship-launched)		Some					12 b/e/						12+ e/
Air-to-air							20 b/f/						20 f/

- a. Data have been rounded to two significant digits or less.
b. Indicating an order, all or some of which has not yet been delivered.
c. Perhaps as many as 335.
d. Indicating the number of Tu-16 aircraft to be equipped with air-to-surface missiles.
e. Indicating the number of patrol craft to be equipped with surface-to-surface missiles.
f. Indicating the number of MIG-21 aircraft to be equipped with air-to-air missiles.

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matters. A Soviet mission has gone to Afghanistan reportedly to assist in reorganizing the military establishment there, and some Indonesians are slated to attend staff schools in the USSR. The newly emergent countries are beginning to receive aid in basic training, which in some cases is mandatory before the advance to technical training can be made.

Training in guerrilla warfare for personnel from revolutionary elements in Southeast Asia appears to have been concentrated for a number of years largely in Communist China. Recently this sort of training has been extended to Africans, specifically personnel from the Federal Republic of Cameroon, some of whom have now returned to their homes and are engaged in terrorist activities. There is no definite evidence to date that the USSR is participating in training non-Bloc personnel for such activities.

B. Origin of the Program

The program of military assistance by the Bloc to non-Bloc countries seems to have had its origin in five basic considerations: (1) the adjunctive Soviet decision to engage in an economic assistance program, (2) the desire to influence local and regional power relationships, (3) the shifts over a period of time in the composition of the Soviet military posture, (4) the desire to realize more than scrap value from obsolescent weapons, and (5) the reception that offers of arms probably would be accorded.

The decision by the Bloc to engage in military assistance to non-Bloc countries probably was made as an adjunct to the economic assistance program begun during the same period. Military assistance, however, as practiced by the Bloc, offers rewards differing in prospect from those offered by economic assistance. The West has viewed its own military assistance to underdeveloped countries primarily as an influence for national stability, but the Bloc evidently has viewed military assistance as a possible tool for creating international instability and has directed aid especially to areas in which the West has sought to limit or at least to control the buildup of arms.

[] Soviet pressure on Indonesia to proceed with the invasion of Dutch New Guinea. The situation provides an example of what the Bloc hopes to accomplish by its military assistance program. The fact of invasion alone, whether or not successful, would prove embarrassing to the West. Similarly, Soviet efforts to exacerbate the Afghan-Pakistan dispute and the Arab-Israeli conflict were the underlying factors in the arms assistance provided to Afghanistan and to Egypt and Syria.

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Short of international troublemaking, military aid has other effects differing from economic assistance. Military assistance can be expected to have impact on an influential group not directly affected by economic assistance. Furthermore, displays of arms tend to enhance the prestige of the holder regardless of when or whether they become operationally effective. Implementation of military assistance can be accomplished quickly with deliveries in quantity from inventory. Soviet arms gained a favorable reputation during World War II, and the USSR probably expected them to be a favorable advertisement for Soviet technical proficiency. Specialized training and logistical support would logically follow, and the unique designs and the operational advantage of standardization would engender a growing and continuing reliance on the supplier for other arms, for spare parts, for overhaul and repairs, and for modification kits.

In 1954-56, significant changes in the Soviet military posture undoubtedly resulted in substantial quantities of arms becoming surplus to military needs. The first large-scale reductions in military manpower from the peak attained during the Korean War were announced by the USSR in 1955. Also, realignment of the forces to increase their effectiveness in nuclear war by changes in unit organization and equipment, operational concepts, and tactical and strategic doctrine was initiated in this period. Additionally, new generations of aircraft, ships, and ground equipment, as well as missiles, were being issued to the forces, rendering obsolescent many older models that were in use at the time.

The fact that initially the arms and materiel to be included in their military assistance program were obsolescent (if not obsolete) probably made the release of this equipment more acceptable to the military leaders of the Bloc. However, the custom of shrouding the military establishment of the Bloc in almost complete secrecy must have been a source of some difficulty. In this connection it is interesting to note that during the early stage of the program the USSR refused to demonstrate certain types of older materiel to prospective purchasers.

There is little if any economic use to which old weapons, combat aircraft, and ships and their supporting equipment can be adapted. Review of the equipment estimated to be in depots of the Soviet ground forces in mid-1955 shows, for example, that in most cases the number in storage greatly exceeded troop holdings.* With new models or series in production, and the possible surplus caused by the reduction and realignment of manpower noted above, the USSR would have had quantities of older equipment beyond any reasonable requirement for mobilization. Considerable progress had already been made by 1955 toward equipping

* See Table 4, Appendix B, p. 26, below.

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the forces of the European Satellites with these items, and the losses of the North Korean and Chinese Communists in the Korean War had been made up. Military aid, then, constituted a partial alternative to scrapping equipment, although the number of older weapons available was well beyond what could be absorbed by prospective buyers.*

Finally, in 1955-56, the USSR could expect the most likely immediate purchasers to find these obsolescent arms readily acceptable. For years the Arab countries of the Middle East had been subject to varying degrees of restriction in purchasing Western arms, as the West sought to preserve some balance of power between the various Arab countries and Israel. The Afghan forces had little equipment, and that in hand was in most cases very old. In 1958, Indonesia was facing restrictions in the supply of Western arms because of the possibility of their use against the Dutch in West New Guinea. The arms available for sale in the Bloc were at least equivalent to the arms of the neighbors of these countries and in some cases more advanced.

C. Development of the Program

During the past 6 years the military assistance program of the Bloc in respect to non-Bloc countries passed through three phases. In the first phase, most of the materiel that was involved was clearly obsolescent. Also, the USSR placed the administration of the program in the hands of its European Satellites, principally Czechoslovakia and Poland.** These countries handled the training within the Bloc and sent military missions to the recipients, but at no time was there any doubt about Soviet control. Czechoslovakia and Poland admitted the necessity of authorization from Moscow for the sale of specific items of equipment, and the origin of the equipment sold by these countries varied. For example, the MIG-15 aircraft (out of production in the USSR) were from current production in Czechoslovakia, and the Il-28 bombers and radar were from the USSR.

The second phase of the military assistance program of the Bloc began in 1956, when the USSR began to deal directly with the recipient countries. In 1958, Communist China also entered into a deal with Indonesia.*** Direct agreements by the USSR were not clearly identifiable at first, as the contracts were mixed deals with

* See Table 5, Appendix B, p. 27, below.

** The exceptions to this generalization include countries on the periphery of the USSR. The USSR is said to have suggested to Finland as early as in 1954 that the Finns should consider purchasing Soviet military equipment. In 1956 the USSR sold arms directly to Afghanistan.

*** The Chinese Communists apparently conduct assistance programs independently of the USSR.

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some of the arms being shipped by the European Satellites and some shipments going through non-Bloc intermediaries. Since 1959, all major arms deals have been made by the USSR.

Another aspect of the second phase was the advance by one generation of the models of military equipment supplied to recipient countries. For example, MIG-17 aircraft were sold in 1956, T-54 tanks in 1958, MIG-19 and Tu-16 aircraft in 1961, and buyers began to request even more modern equipment, especially aircraft and radar.

Egypt initiated one further development in 1958, when it requested the USSR to furnish military-industrial equipment and materiel for support and maintenance of the Egyptian military forces. From the nature of the items sought, Egypt clearly intended to attain a measure of independence from suppliers and maintenance facilities in the Bloc. The Soviet reaction seems to have been dilatory. A line of credit was granted, but negotiations implementing the agreement proceeded slowly and were brought nearly to a halt because of the treatment accorded by Egypt to the Egyptian Communist Party. Some of the projects are underway now, but the ultimate success of the request by Egypt is still in question.

With the Indonesian agreement of January 1961, the third phase of military assistance by the Bloc began -- that is, the sale of first-line equipment, including a variety of missile systems. Egypt and Iraq also are now slated to receive equipment similar to that ordered by Indonesia: MIG-21 fighters, surface-to-air missiles, air-to-air missiles, and air-to-ground missiles. Thus the USSR advanced to a point in its military assistance program of committing major items in current production to neutral countries outside the Bloc.

D. Probable Soviet Evaluation of the Program

The time necessary to realize substantial gains from its sale of military equipment possibly has proved to be greater than the USSR originally anticipated. In the 6 years during which the program has been underway, no country has fallen under Communist domination as the result of Soviet military assistance. On the other hand, of the approximately 15 countries or groups receiving arms aid from the Bloc, several countries have been able to demonstrate their independence of the West, and Cuba and revolutionary groups in Algeria and Laos have successfully maintained themselves against Western forces or forces supported by the West.

The military assistance program of the Bloc to date has the following aspects that the USSR probably views as decidedly encouraging:

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1. Recipients of military assistance from the Bloc may be found in every underdeveloped area of the world. With the assistance given to Cuba, Latin America has been penetrated, and the authority of the US has been challenged directly.

2. The training and maintenance programs provide an entree to the recipient countries on a continuing basis and an opportunity to indoctrinate members of the recipient forces in the methods and ideas of the Bloc. Additionally, the Bloc is building an expert cadre of its personnel with a knowledge of non-Bloc countries and is gathering information of intelligence value.

3. A network of possible intermediaries has been established to assist in transferring or smuggling arms to areas where direct involvement may be undesirable.

4. The recipients have become indebted to the Bloc. Thus, when difficulties in discharging such indebtedness develop, the USSR has the opportunity to gain gratitude by adjusting the obligations.

5. Acceptance of arms assistance from the Bloc has become respectable, and threats of going to the Bloc have been proved a successful means of exerting pressure on the West.

6. Quantities of arms potentially available for use by personnel of the Bloc or personnel trained in the Bloc are in place in strategic areas.

Nevertheless, the military assistance program of the Bloc also has created the following problems:

1. A number of important refusals to purchase major combat arms have occurred, notably by India, Sudan, Burma, Libya, Ethiopia, and Ecuador, and suspicion of military assistance by the Bloc has not been completely dispelled.

2. The escalation of demands for more modern and sophisticated arms and equipment may have been much more rapid than anticipated. The Bloc has stalled on some requests, has refused others, and in a few cases has yielded reluctantly. An element of competition for the more modern weapons seems to be developing among at least some of the recipients.*

* Chou En-lai remarked to the Indonesians that perhaps Communist China would have to seek modern arms from the Indonesians, referring especially to Tu-16 bombers, which the Chinese Communists have not yet received from the USSR.

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3. Arms have been made available to countries that may use them to resist Communist takeover -- for example, Egypt and Syria. Furthermore, a revolution in one of the recipient countries could create in a strategic area a well-armed country unfriendly to the Bloc -- for example, Iraq.

4. The Bloc may suffer by comparison with the West in terms of the quality of its product and, more importantly, in the availability of spare parts and maintenance.

Perhaps the most serious potential risk to the success of the military assistance program lies in the fact that the Bloc probably would be blamed should a military operation fail because the equipment did not perform as expected. Most of the military forces of the countries that have received assistance from the Bloc have not had any real appreciation of the rigorous maintenance procedures necessary to keep a force equipped with modern weapons in a combat-ready state. A number of complaints have been noted concerning the failure of the Bloc to provide manuals giving operational and technical data for materiel supplied. Whether this tactic on the part of the USSR stemmed from a desire to provide technicians rather than information or a desire to keep secret some of the details concerning the materiel, further aggravation has resulted. Additionally, the recipients have had chronic problems in trying to get spare parts. Although supplies of some spare parts have been exhausted at abnormal rates because of poor handling and maintenance procedures, equipment sitting inoperable because of lack of replacement parts does not engender good will.

E. Probable Future Prospects

1. General

The determination of the Bloc to continue present programs and start new ones is clear from recent actions in each of the major underdeveloped areas. The prevailing atmosphere is favorable for the objectives that the Bloc is trying to achieve and seems likely to remain so in the foreseeable future. Military assistance is clearly the most effective if not the only means of reaching the influential military segments of the recipient countries. The indirect return of possible complications for and harassment of the West will continue to make military assistance attractive to the Bloc as long as the cold war situation exists, even where more direct returns (for example, Communist takeover) are not to be anticipated. The number of other possible recipients for the use of obsolescent military materiel for such purposes is still large and will tend to keep the out-of-pocket direct cost of military aid down even in the face of

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escalation in newer models. The stocks of obsolescent arms appear to be more than adequate to meet possible future requirements.

Training probably will assume increased importance in the military assistance program of the Bloc. Emphasis on training is consistent with the long-term goals of the Bloc in influencing the armed forces of recipients. Additional factors, however, are the more complex equipment being sent to some countries and the extension of assistance to countries with very low levels of literacy and technical proficiency. Advanced equipment not only requires greater technical facility in the people operating and maintaining it but also requires a higher level of competence from staff officers and commanders for whom new ranges of problems in operations and logistics are presented at greatly increasing rates. In the newly emergent countries, even if cadres of trained men exist, they are likely to be very small, and training must begin at a very low level if a reasonably competent and disciplined force is to be formed. The latter programs offer the Bloc the best prospects for extending its influence throughout the recipient forces, and the program recently begun in Ghana shows that the Bloc intends to seize the opportunity where and when it is offered.

With the underdeveloped countries of the world the Bloc has established itself as a ready source of arms and ostensibly does not question the motives of those requesting arms or concern itself with the effects on the recipients' neighbors. Also, underdeveloped countries appear to be accepting the proposition, constantly reiterated by the Bloc, that military establishments can be built on supplies of arms and technical aid from the Bloc without the recipient's having to accept military or political domination by the Bloc. Because acceptance of military assistance from the Bloc does not appear to be a bar to economic or even military aid by the West, the possibilities of retreat would seem to be available should difficulties be encountered with the Bloc. Thus the principal bar to the acceptance of military aid from the Bloc is reluctance to do business with the Communists. Even countries with a well-established anti-Communist position, however, can be tempted to use the threat of requesting arms from the Bloc to obtain arms from the West.

2. Present Purchasers

Neither curtailment through Western inroads in military assistance from the Bloc nor unilateral cessation seems to be in immediate prospect for the program of the Bloc. On the contrary, agreements arrived at by the Bloc during 1961 indicate increased activity. The most significant development since the Bloc began to offer military assistance has been the decision by the Bloc to release advanced weapons systems such as surface-to-air missiles, medium

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jet bombers with air-to-surface missiles, ship-launched surface-to-surface missiles, and antitank missiles, along with the supporting equipment required for such systems. Indonesia, Egypt, Iraq, and perhaps Syria are to receive some or all of the aforementioned systems. Escalation toward more advanced systems for those countries that so far have received only obsolete equipment also must be expected. Thus Ghana is expected to receive jet fighter aircraft, and Cuba is receiving MIG-19's and motor torpedo and antisubmarine craft. Afghanistan also probably will receive MIG-19 aircraft soon if it has not already done so, and Finland is expected to receive MIG-19's (and possibly MIG-21's) and surface-to-air and antitank missiles.

3. Possible Purchasers

Prospects for future military assistance by the Bloc to countries or groups not yet receiving significant assistance are considered below within groupings characterized by similarities in the methods and objectives of the Bloc.

a. Countries Adjoining the Bloc

The group of countries adjoining the Bloc is subject to continuing interest on the part of the Bloc because of its concern with the security of its frontier and because of the type of pressure that it is able to exert across these borders. The Chinese Communists in providing military assistance have concentrated almost exclusively on support to leftist groups trying to capture a country by guerrilla warfare, and areas contiguous to the Bloc are most suitable for this type of support. For this reason, Soviet support to the rebel movement in Laos especially is significant because it has occurred in an area which in the past has been of primary concern to the Chinese Communists. The following countries that adjoin the Bloc also are of special interest.

(1) India

India probably is a first-priority target for penetration by the Bloc. Success in India thus far has been largely in the area of economic aid, but a sizable sale of arms to India would be regarded by the Bloc as quite a coup, and various maneuvers to achieve this purpose can be anticipated. To date, India has refused a number of offers by the Bloc of combat equipment. Recent purchases of less combat-oriented equipment (for example, transport aircraft, helicopters, and jet engines), however, undoubtedly have encouraged the Bloc to continue its offers, and the added inducement of considerable concessions in price on advanced weapons probably can be expected.

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India is apprehensive about border incursions by the Chinese Communists and about further military preparations in Pakistan. In addition, apparently some "men at the top" believe that they should make a show of Soviet equipment against the Chinese. Disregarding the objections of officers of the Indian Air Force, Defense Minister Menon purchased An-12 and Il-14 transport aircraft to support Indian forces on the Chinese border. The USSR showed no reluctance to sell the aircraft to India. [redacted]

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[redacted] additional An-12 transport aircraft are being purchased in spite of the difficulties encountered in the operation of those acquired previously. Some transport aircraft also are to be purchased from the US, a situation that may offset the resistance of the Indian Air Force officers to more An-12's.

(2) Burma

The USSR has made at least two offers of arms to Burma, and the Burmese are considering the purchase of Polish equipment. Orientation of Burma toward the Bloc would leave Thailand and Malaya isolated in Southeast Asia, and, therefore, continued offers to Burma for the purpose of increasing the influence of the Bloc may be anticipated.

b. Newly Emergent African Countries

Some of the countries of Africa that recently have emerged from colonial status provide an ideal climate for penetration by the Bloc through military assistance. Often left without even an adequate police force, the new countries are eager to obtain arms for internal security as well as to protect their sovereignty and impress neighbors. A desire to display nationalistic independence by turning to sources other than the West makes the approach by the Bloc welcome in a number of former colonies. The Casablanca countries of Morocco, Guinea, Ghana, and Mali already have either leftist tendencies or expansionist interests that have made them particularly vulnerable to offers by the Bloc. The Bloc used these countries as intermediaries in arms traffic almost as soon as they received arms for their own use, and the anticipated gains for the Bloc per given quantity of arms probably are higher in Africa than in any other area. Also, Africa is an area where the Bloc still can use effectively older weapons or small arms.

With the exception of token gifts or purchases, Libya and Sudan have refused offers of military assistance by the Bloc. Sudan held firm against pressure to permit overflights of shipments of arms to Gizenga in the Congo. A number of other new countries probably would refuse offers if made at this time, but the situation

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could change rapidly, and the failure to obtain requested arms from the West probably will result in at least threats to turn to the Bloc. Even if the West does fulfill requests, additional shipments of arms to neighbors probably will promote arms races with an escalation in the calibers and models of weapons.

c. Latin America

Success with Cuba probably has stimulated the interest of the Bloc in the possibilities of penetration of other countries of Latin America. An offer of arms by Czechoslovakia to Ecuador was made first in 1955, and offers have been renewed subsequently. Although recent developments appear to have made acceptance of arms aid by Ecuador remote, a change in administration toward the left would bring new offers. Similarly, the Bloc can be expected to attempt to exploit developments elsewhere in Latin America such as differences between a Latin American country and the US, troubles among Latin American countries themselves, or revolts bringing leftist governments into power.

The Bloc probably has plans to use Cuba as an intermediary for covert shipment of arms, not necessarily manufactured by the Bloc, to dissident groups in Latin America. Cuba may have become too openly committed to the Bloc on its own initiative, however, to be very effective as an intermediary except for contact with local Communist parties. Recent incidents have shown that at least some Latin American countries are alert to Cuban activities, and the prospect of sizable shipments escaping notice has been reduced.

d. Revolutionary Groups

The Bloc undoubtedly will exploit any opportunity to aid leftist or other revolutionary groups fighting to oppose Western interests. The Chinese Communists probably would be more heavily engaged in this type of military assistance than they are if adequate clandestine transport were at their disposal. Thus any increase in their capabilities probably would result in an increase in their activities. For example, they probably would engage in direct shipments of small arms to Colombian guerrillas if the means of delivery were available. The USSR, although not slow to exploit this type of target, is more sensitive to exposure and consequently is more likely to work through intermediaries.

Although northern Thailand, central and south Africa, and northern South America (Colombia and Venezuela) appear to be the most likely candidates for future aid to revolutionary groups, no area seems to be immune to the possibilities of guerrilla activity supported by the Bloc.

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e. Others

Offers of military assistance by the Bloc have not been limited to countries falling into the categories covered above. Middle Eastern countries other than those already referred to (see E, 2, above) are known to have received offers. Saudi Arabia and Jordan made some use of offers by the Bloc to attempt to pry more military assistance from the West, whereas Iran and Lebanon seem not to have given serious consideration to the blandishments of the Bloc. In areas other than the Middle East, similar offers without significant result also have been made to Ceylon, Cambodia, Ethiopia, Libya, and Sudan. Evidence at hand suggests that such solicitations will continue. The Bloc appears to be prepared to make offers even when prospects of acceptance seem small. The possible success of solicitations by the Bloc in the future cannot be judged from evidence at hand, but recent success by the Bloc with offers made to Morocco shows that even countries now receiving substantial military assistance from the West are not immune to persuasion by the Bloc.

III. Soviet Assistance to Countries of the Sino-Soviet Bloc
Excluding Communist China

Soviet military assistance to countries of the Sino-Soviet Bloc excluding Communist China has followed a pattern. The armed forces of these countries have been transformed in general from the heterogeneous forces that existed after World War II into forces of fairly uniform structure having essentially uniform tables of organization and equipment (TOE). As can be seen in Table 3,* the majority of these countries received major equipment valued on the order of \$0.5 billion. Soviet military assistance to North Vietnam has been negligible in value terms, that to Albania has been modest, and that to Hungary has dropped markedly since 1956.

It is estimated that the nine countries of the Bloc that are being considered in this report have received about \$4.5 billion to \$5 billion worth of major military equipment since World War II (see Table 3). The valuation, it should be noted, is subject to limitation and contains elements of both understatement and overstatement.**

* Table 3 follows on p. 20.

** Because it was derived primarily from evidence as to holdings of major equipment, this value tends to underestimate the total military assistance, in that attrition, operating spare parts, supplies, ammunition, and the like have not been specifically included. It is overstated, in that the equipment has been priced as new equipment in US dollars and includes some items that have been indigenously produced. Because of indigenous production in the [footnote continued on p. 20]

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Table 3

Major Military Equipment Provided by the USSR
to Other Countries of the Sino-Soviet Bloc Since World War II a/

Million 1960 US \$				
<u>Bloc Country</u>	<u>Ground</u>	<u>Naval</u>	<u>Air</u>	<u>Total</u>
Albania	50	40	20	100
Bulgaria	330	120	220	700
Czechoslovakia	520		180	700
East Germany	380	60	70	500
Hungary	180		160	300
Poland	350	120	310	800
Rumania	360	40	160	600
North Korea	190	20	350	600
North Vietnam	Negl.	Negl.	Negl.	Negl.
Subtotal	<u>2,400</u>	<u>400</u>	<u>1,500</u>	<u>4,300</u>
Other (not allocated) <u>b/</u>				<u>500</u>
Total				<u><u>4,800</u></u>

a. Excluding the value of logistical support equipment and supplies (for example, POL, ammunition, and operating spares) that may increase the grand total by as much as 50 percent.

The values are a reflection of US costs of production in 1960 -- that is, what it would have cost to produce the equipment in the US in 1960. Thus the equipment also is valued as if it were new. See the second footnote on p. 19, above. Data have been rounded.

b. Not allocated by country at this time. Including missile systems (about \$100 million), electronics equipment (about \$150 million), and other items.

European Satellites, some of the elements of understatement may not be very marked. Most of these countries have long had the capability to produce ammunition, supplies, and support equipment. It is reasonable to assume that this capability is being exercised, at least to some degree, in support of indigenous forces.

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The available evidence suggests that, in value terms, about one-third of Soviet military assistance to the Satellites was rendered before 1955 and that most of the remainder was rendered by 1959. The terms under which the USSR has been providing equipment to these countries are not known. Moreover, it is not certain that all of the equipment provided to these countries originated in the USSR. Most of it must have, but both Czechoslovakia and Poland have produced certain types of equipment in excess of their needs (as expressed by their orders of battle) -- perhaps most notably MIG-15's and MIG-17's, U-MIG-15's, and helicopters. It is reasonable to suppose that some of this excess has found its way to other countries of the Bloc. The magnitude of such transfers, however, may be safely ignored as being of little significance in value terms when the over-all size of Soviet assistance is considered. On balance, the \$4.5 billion to \$5 billion valuation of the major equipment element of Soviet military assistance probably is an understatement of the total military assistance to countries of the Bloc, which may have been approximately \$7 billion.

From the point of view of the USSR, the volume of equipment provided is rather trifling. The quantities of the items shipped have been small in comparison with the estimated cumulative production of the items (see Table 5*). Estimated shipments to the countries of the Bloc of the items presented in Table 5 represent more than 10 percent of the cumulative production of relevant models of fighter aircraft; about 10 percent of the artillery and the same percentage of the armored fighting vehicles; and less than 5 percent of the relevant models of bombers, destroyers, and submarines.

From the point of view of the recipient, however, the volume of equipment, at least in economic terms, undoubtedly seems quite large if it is assumed that a minimum realistic payment was required. Most of these countries have military expenditures roughly the equivalent of a few hundred million dollars and lack the resources to support an elaborate military establishment.

More than one-half of this assistance was in the form of ground force equipment, and, of the remainder, most was aircraft. The volume of equipment provided, even when taken in conjunction with indigenous production, leaves these countries in sum with modest totals compared with the USSR. Estimates of the inventories of equipment and of manpower suggest, however, that the level of equipment (per unit) with Satellite troops is much like that of the USSR -- particularly for the air forces. For the ground forces the level of equipment is considerably less than for the USSR if one considers equipment in depots as well as that with troops. Among the Satellites the ground forces of

* Appendix B, p. 27, below.

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Czechoslovakia (and probably of Bulgaria and Poland) are the best equipped.

None of these countries has any long-range offensive capability in the usual sense of the word. Their air capabilities do not extend beyond defensive and local offensive roles, nor their naval capabilities beyond adjacent coastal waters. On the assumption of the reliability of the personnel of these countries, the main contribution of these forces to the basic military capability of the Bloc is to form an integrated part of its air defense network and as additional ground forces. It is the air defense function that appears responsible for the countries of the Bloc obtaining the most modern Soviet equipment -- the most striking example being the SA-2 defensive missile system. Otherwise, the USSR usually has provided equipment already superseded by more advanced models.

In providing military assistance the USSR has been helping itself by helping the regimes in power in these countries. At least in some cases the presence of an indigenous military capability has permitted the maintenance of the Communist regimes without direct Soviet military intervention. In addition, having under its control -- particularly through the Warsaw Pact -- the uniformly organized and equipped forces of most of these countries (which could easily be supplied and integrated with its forces) provides not only a substantial buffer but also, to the extent that these forces are loyal or controllable, an increment to its own military capabilities.

The question of the loyalty and subservience of the Satellites to Moscow undoubtedly introduces an element of restraint. Hungary, to whom assistance dropped markedly after 1956, exemplifies such a situation, as does Yugoslavia. Economic considerations -- that is, the ability of these countries to extend themselves further -- also will produce restraint (remembering the industrial overextension of some of these countries in the 1950's). Further restraint, at least with regard to marked departures from recent policy, would be imposed by anticipated reactions of the West or other countries (Bloc and non-Bloc).

Factors that might affect Soviet decisions are military-technological changes, changes in the relationships within the Bloc (for example, Albania), and changes in the international situation through agreement or otherwise. Barring such fundamental changes, it is to be expected that in the near future the USSR will continue to provide equipment to these countries and that the pattern will be similar to the past, particularly the recent past -- that is, the emphasis will be on defensive systems and will not include strategic systems. Thus surface-to-air systems can be expected to be extended and supplemented and fighter aircraft units to be modernized with later models of fighter aircraft, such as the MIG-21, and with air-to-air missiles.

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APPENDIX A

PRICES AND REPAYMENT TERMS OF SOVIET MILITARY ASSISTANCE AGREEMENTS

In general, the dollar values for military assistance by the Bloc to non-Bloc countries have been derived from the actual or estimated value of agreements (in Soviet list prices) converted at the official rates of exchange if necessary.

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Except for a few discrepancies, the list prices quoted to various non-Bloc countries by the USSR for the same items of military equipment show surprisingly little variation. The variations in price that have been reported probably may be explained by such factors as differences in the condition of the equipment at the time of purchase, differences in the extent of modification to the basic item, and differences in the quantity of spare parts included with the basic item.

Although a precise determination is not feasible, it can be stated in general terms that these quoted list prices are reasonable -- that is, they are not exorbitant, nor are they indicative of any great bargains.

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The reasonableness of quoted Soviet list prices, together with the relative standardization of these prices, as discussed above, makes it possible to use these prices as a means for assessing in meaningful monetary terms the magnitude of the Soviet military assistance program.

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It is important to note, however, that the quoted list prices are more often than not substantially higher than the prices actually paid by the recipient countries. Thus they do not provide an accurate reflection of the financial burden placed on the buyer. The usual practice has been to discount during the course of negotiation the total

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value of the equipment and other items covered by a contract and thereby, in effect, to lower prices. The reported discounts to date have varied from as little as no discount at all to as high as 60 percent and have averaged about 25 percent.

With respect to terms of requital, the contracts generally have required a 5-percent cash downpayment, with the balance to be repaid in annual installments over at least a 5-year period at 2 percent interest. As in the case of the discounting practice, however, the repayment terms apparently are quite flexible and have been eased rather readily in certain instances.

The discounting and repayment features of Soviet military assistance agreements have served very neatly a twofold purpose. They provide a convenient means for inserting political considerations into the agreements while maintaining a facade of "no strings" by means of quoted list prices. These features undoubtedly make offers of military assistance by the Bloc quite attractive to prospective buyers. In fact, some of the buyers have stated that they could not afford to refuse the offers. This reaction has occurred even though some of the recipients of assistance from the Bloc have appreciated fully that the equipment is not the most suitable for their use, that it is more inefficient and expensive to operate than Western equipment, and that spare parts and maintenance might be a source of future difficulty.

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APPENDIX B

QUANTITIES OF SOVIET MILITARY EQUIPMENT THAT POSSIBLY MAY BE AVAILABLE
FOR RELEASE TO OTHER COUNTRIES

Older Soviet military equipment and Soviet equipment approaching obsolescence are believed generally to be plentiful enough to cause little or no constraint on the quantities that might be provided to other military forces of the Bloc and to non-Bloc purchasers. An appreciation of the quantities of equipment in question may be gained by examining the estimated inventory of ground equipment in the Soviet forces shown in Table 4.* The estimated cumulative production for certain models of older equipment, along with the quantities estimated to have been sent to non-Soviet forces, is shown in Table 5.** The confidence levels that apply to estimates of Soviet production of military equipment and Soviet inventories vary widely, but most arms and equipment available for release to non-Soviet forces would appear to exceed greatly the quantities that might conceivably be given or sold to non-Soviet forces.

Also of consideration is the manner in which the USSR allocates equipment to the troops and to the depots and the manner in which it uses the equipment actually in the hands of troops. The USSR goes to considerable lengths to maintain stocks of military equipment, especially ground armaments, in new or nearly new condition in order to insure the combat effectiveness of its forces in the event of war. In part, the policy reflects the shorter life built into Soviet equipment compared with Western arms. The Soviet practice results in the diversion of part of the production of new generations of hardware directly into military depots as well as the withholding from daily use of a sizable part of the equipment actually in the hands of the troops. This practice results in much equipment becoming obsolete without having been used even for training. Thus the stocks available for sale in 1955 probably were composed of much unused, although obsolescent, materiel. A sample illustration of the results of this practice was the sale of T-54 tanks to Finland in 1959. The tanks proved to be of fairly recent production but obviously had been prepared for long-time storage. This sale occurred during a period when a large number of T-34's were still in use by Soviet troops in Germany.

* Table 4 follows on p. 26.

** Table 5 follows on p. 27.

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Table 4

Estimated Inventory of Selected Soviet Arms and Equipment a/
Mid-1955

Arms and Equipment	Units		
	With Troops	In Depots	Total
107-mm mortar	150	1,800	2,000
120-mm mortar	5,000	19,000	24,000
160-mm mortar	2,000	8,600	11,000
76-mm gun	2,400	29,000	31,000
85-mm gun	5,000	16,000	21,000
122-mm howitzer	5,700	5,600	11,000
122-mm gun	1,200	5,500	6,700
152-mm howitzer	500	7,100	7,600
152-mm gun-howitzer	1,200	7,100	8,300
57-mm antitank gun	2,500	11,000	14,000
100-mm field antitank gun	1,400	7,100	8,500
85-mm antiaircraft gun	8,000	11,000	19,000
100-mm antiaircraft gun	3,000	700	3,700
SU-85 (85-mm self-propelled assault gun)	600	300	900
SU-100 (100-mm self-propelled assault gun)	4,000	4,100	8,100
Medium T-34(85-mm) and T-54 tanks	19,000	18,000	37,000
Heavy JS-2 and JS-3 tanks	2,300	5,800	8,100

a. Data have been rounded to two significant digits.

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Table 5

Estimated Cumulative Production of Selected Soviet Military Equipment
and Estimated Quantities Committed to Non-Soviet Forces ^a/_{*}

	Production			Shipments		Units
	Year Initiated	Year Ended	Cumulative Total	To Satellites	To Non-Bloc Countries	Total
Land Armaments						
Small Arms						
Semiautomatic carbine (SKS)	1947		8,000,000 ^b / ₁			
Submachinegun (AK)	1949		2,800,000 ^b / ₂			
Machinegun (RP-46)	1946		36,000 ^c / ₁		130,000	
Machinegun (12.7-mm M-46)	1946	1959	70,000 ^c / ₂			
Total small arms			11,000,000	N.A.	130,000	N.A.
Shipments as a percent of cumulative total				N.A.	1%	N.A.
Artillery						
85-mm field gun (D-44)	World War II	1959	28,000	700		
100-mm field gun (M-44)	World War II	1953	6,000 ^d / ₁	200		
122-mm howitzer (M-38)	Pre-World War II	1954	6,500 ^d / ₂	3,300		
122-mm corps (31/37)	Pre-World War II	1953	4,000 ^d / ₃	100		
152-mm gun/howitzer (37)	Pre-World War II	1954	4,500 ^d / ₄	500		
37-mm antiaircraft (M1939)	Pre-World War II	1950	3,500 ^d / ₅	2,800	6,900	
57-mm antiaircraft (S-60)	1949	1958	10,000	1,200		
85-mm antiaircraft (KS-18)	World War II	1949	3,000 ^d / ₆	3,000		
100-mm antiaircraft (KS-19)	1948	1960	8,000	600		
14.5-mm antiaircraft (ZPU-2)	1949					
14.5-mm antiaircraft (ZPU-4)	1949		64,000	N.A.		
Total artillery			140,000	12,000 ^e / ₁	6,900	19,000
Shipments as a percent of cumulative total				9%	5%	14%

* Footnotes for Table 5 follow on p. 29.

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Table 5

Estimated Cumulative Production of Selected Soviet Military Equipment
and Estimated Quantities Committed to Non-Soviet Forces a/
(Continued)

	Production			Shipments			Units
	<u>Year Initiated</u>	<u>Year Ended</u>	<u>Cumulative Total</u>	<u>To Satellites</u>	<u>To Non-Bloc Countries</u>	<u>Total</u>	
Land Armaments (Continued)							
Armored Fighting Vehicles (AFV)							
T-34/85 (medium)	World War II	1950	9,000 d/	5,300			
T-54 (medium)	1948		38,000 b/	1,400	1,200		
JS-3 (heavy)	World War II	1950	2,600 a/	500	90		
PT-76 (amphibious)	1950		3,800 b/	200	80		
SU-85 self-propelled assault gun	World War II	World War II	N.A.	300			
SU-100 self-propelled assault gun	World War II	1953	4,400 d/	1,500	400		
57-mm self-propelled antiaircraft gun	1952		8,400 b/	N.A.	N.A.		
BTR-152 personnel carrier	1949		43,000 b/	2,200	1,100		
Total AFV e/			<u>110,000</u>	<u>11,000</u>	<u>2,900</u>		<u>14,000</u>
Shipments as a percent of cumulative total				10%	3%		13%
Aircraft							
Fighters							
MIG-15	1948	1954	14,000	2,400	420		
MIG-17	1952	1958	9,600	700			
MIG-19	1954	1958	3,600	200	78		
MIG-21	1957		400 f/	0	56		
Total fighters			<u>28,000</u>	<u>3,300</u>	<u>550</u>		<u>3,900</u>
Shipments as a percent of cumulative total				12%	2%		14%

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Table 5

Estimated Cumulative Production of Selected Soviet Military Equipment
and Estimated Quantities Committed to Non-Soviet Forces a/
(Continued)

	Production			Shipments		
	Year Initiated	Year Ended	Cumulative Total	To Satellites	To Non-Bloc Countries	Units
						Total
Aircraft (Continued)						
Bombers						
Il-28	1949	1957	5,800	300	130	
Tu-16	1953	1959	1,800	0	46	
Total bombers			<u>7,600</u>	<u>300</u>	<u>180</u>	<u>480</u>
Shipments as a percent of cumulative total				4%	2%	6%
Submarines						
W-class	1950	1957	230	6	15	21
Shipments as a percent of cumulative total				3%	7%	9%
Destroyers						
<u>Skorvy</u> -class	1949	1952	73	2	12	14
Shipments as a percent of cumulative total				3%	16%	19%

a. Shipments include materiel on order, all or some of which may not yet be delivered. Data have been rounded to two significant digits or less.

b. 31 December 1960.

c. 1946-55.

d. 1946 to the end of production.

e. Minimum total based on available data.

f. Mid-1961.

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